



Connecticut Department of Energy and Environmental Protection



Hazardous Waste Advisory Committee

Small Quantity Generator RCRA Training

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Connecticut Department of Energy and Environmental Protection

Topics covered

- Inspections
- Universal Waste Management
- Used Oil Management
- Generator Closure
- Recycling



Inspection Requirements

- Generators are required to inspect their facility for any deficiencies that may cause or lead to a release of hazardous waste or which may pose a threat to human health or the environment
- Develop & follow a written schedule
- Inspection schedule and program should be facility specific
- Inspections must be recorded in a log or summary



What do I Need to Inspect?

- Written Inspection Schedule/Log
 - Monitoring equipment
 - Safety equipment
 - Emergency equipment
 - Security devices
 - Operating & structural equipment
 - Containers, storage areas, & containment systems
 - Tanks & ancillary equipment
 - Loading & unloading areas

NOTE: DEEP Recommends inspecting containers holding CT Regulated Wastes, Universal Waste and Used Oil



Examples of what to look for

- Fences
- Warning Signs
- Gates
- Lighting
- Locks

Security Equipment



- Liquid Level Alarms/Meters
- Conservation Vents
- Leak Detection Systems
- Fire Detection Systems
- Groundwater Monitoring System

Monitoring Equipment



- Loading Areas
- Unloading Areas
- Storage Areas
- Main Roadway
- Gate Area
- Periphery

Areas



- Telephone
- Pagers
- Two-Way Radios
- Intercoms
- Public Address System
- TV Monitoring System

Communication Equipment



- Emergency Shower
- Face Shields
- Protective Gloves
- Disposable Respirators
- First Aid Equipment/Supplies
- Protective Clothing
- Air Purifying/ Chemical Respirators
- Signs

Safety Equipment



- Fire Blankets
- Fire Extinguishers
- Fire Alarm Systems
- Generators
- Emergency Lights
- Portable Pumps/Hoses
- Fire Fighting Wagons/Hoses
- Self-Containing Breathing Apparatus
- Absorbents
- Containment Booms
- Spill Response Carts/Wagons

Emergency Equipment



- Dikes/Berms
- Troughs/Sumps
- Ramps
- Elevators/Lifts
- Tank Supports
- Containment Vault
- Bases/Foundation
- Roofs
- Walls

Structures



- Waste Feed Cut-off/Bypass
- Discharge Control Equipment
- Drainage Systems
- Monitoring Equipment Data (i.e., temperature, pressure, etc.)
- Waste Levels
- Tank Materials/Seams (i.e., corrosion, leaking, etc.)
- Plumbing/Sumps
- Labeled/Marking with words "Hazardous Waste" & Chemical name/Description

Tanks



- Condition (i.e., leaking, bulging, rusted or corroded, etc.)
- Closed when not in use
- Labeled/Marking with words "Hazardous Waste" & Chemical name/Description
- Accumulation start date
- Containers onsite for less than 90 days for LQGs or less than 180 days for SQGs
- Adequate Aisle space
- No smoking signs present

Containers



- Tires/Tracks
- Brakes
- Hydraulics
- Trailer Hitches
- Lights
- Horns/Sirens
- Engine Condition

Mobile Equipment




(Example) What to look for?

- Container Storage Area
 - Condition of Drums
 - Leaking
 - Bulging
 - Rusted/corroded
 - Closed when not in use?
 - Marked with:
 - Words Hazardous Waste
 - Chemical name/Description
 - Accumulation Start Date
 - Verify onsite for onsite for <90 days for LQG or <180 for SQG
 - Appropriate Containment System in place?



(Example) What to look for?

- Safety Equipment
 - Emergency Shower (Is it working?)
 - Adequate Quantity of:
 - Face Shields
 - Protective Gloves
 - Protective Clothing
 - Unexpired first aid equipment?
 - Emergency lighting working?
 - Spill Kit containing adequate quantities of supplies?

***NOTE: Inspection logs should be facility specific.**



How Often do I Need to Inspect?

- Inspection Schedule
 - Daily: tanks & ancillary equipment
 - Weekly: container, container storage area, & containment systems
 - Monthly: safety & emergency equipment
 - When used: loading & unloading areas



How do I Document Inspections?

- Inspection Log
 - Date & time of inspection
 - Full name of inspector
 - Notation of observations
 - Date & nature of repairs
 - Follow up and record corrective actions
 - Keep on file for 3 years from date of inspection



Blank Weekly Inspection Form

Example

Instructions: Please use ink. Results of weekly inspections of hazardous waste containers and container storage areas must be recorded in this log. If any deficiencies are found, a description of the deficiencies must be recorded in the "Observation" column. Prompt and immediate action must be taken to correct any deficiencies observed. The date and nature of all corrective actions must be recorded in the "Corrective Actions Column". Once this log is completed, it should be maintained in a binder and must be kept on file for at least three years from the date of inspection. These inspection logs must be made available for inspection by State DEP inspectors.

Date of Inspection: _____ Time of Inspection: _____ a.m./p.m.

Full Name of Inspector: _____

Item/Condition to be checked	Yes	No	Observation/Deficiency	Corrective Actions and Date
Are all containers closed?				
Are all containers in GOOD condition (NOT leaking, rusted, bulging or otherwise in poor condition)?				
Are all containers marked?				
Does the marking include the words "Hazardous Waste" and other words to describe the waste?				
Are all markings legible and visible for inspection?				
Are all containers marked with accumulation start dates?				
Are dates less than 180 days?				
Is the amount of waste on site less than 1,000 kg (2,200 lbs)?				
Is there adequate aisle spacing?				
Are the containers stored on an impermeable base that is bermed?				
Are the base and berm free of gaps, cracks, and damage?				
Is the base free of spills, leaks, or other accumulation?				
Are incompatible materials separated by a wall or a berm?				

Note: If the "NO" column is checked, corrective action must be taken and the "Observation" and "Corrective Action" columns must be completed.

Additional Comments:



Blank Monthly Inspection Log

Example

Monthly Safety and Emergency Equipment Inspection Log

Instructions: Please use ink. Results of monthly inspections of safety and emergency equipment must be recorded in this log. If any deficiencies are found, a description of the deficiencies must be recorded in the "Observation" column. Prompt and immediate action must be taken to correct any deficiencies observed. The date and the nature of all corrective actions must be recorded in the "Corrective Actions" column. Once this log is completed, it should be maintained in binder and must be kept for at least three years from the date of the inspection. These inspection logs must be made available for inspection by State DEP inspectors.

Date of Inspection: _____ Time of Inspection: _____ a.m./p.m. Name of Inspector (Full Name): _____

Item/Condition to be checked	Required Quantity	Yes	No	Observation/Deficiency	Corrective Actions and Date
Personal Protective Equipment					
Safety Glasses?	5				
Face Shields?	2				
Rubber Gloves (Nitrile)?	50 pairs				
Leather Gloves?	4 pairs				
Cotton Gloves?	40 pairs				
Dust Masks?	24				
Rubber boots?	5 pairs				
Disposable coveralls?	5				
Safety Equipment					
Emergency showers in good operating condition, and marked?	Ink Room R&D Area				
All fire extinguishers fully charged, clear, expiration date marked?	38				
Emergency lights in good working order?	8				
Emergency Equipment					
Sealed 20 Gallon Spill Kit Contents: 20 pads, Heavy Wt; 4 Socks, 3"x48"; 1 Sock, 3"x8"; 2 Pillows, 18"x18"; 1 Bag Ultrasorb, Granular 5#; 3 Temporary Disposal Bags; 3 Plastic Zip Ties, 12"; 1 Pair, Nitrile Gloves; 1 Pair Safety Goggles; 1 Instruction Sheet.	3 spill kits with seals intact				
<i>Mix Room</i>					
3" X 10' sock	4				
Pillows	4				
Mats	60				
Disposable Bags/Ties	8/8				
<i>Loading Dock</i>					
3" X 10' sock	6				
Pillows	4				
Mats	30				
Disposable Bags/Ties	8/8				
Are the salvage drums empty, clear, and marked?	2				

Note: If the "NO" column is checked, corrective action must be taken and the "Observation" and "Corrective Action" columns must be completed.

Additional Comments: _____





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Universal Waste

- Universal waste rule provides a set of streamlined regulations to reduce the regulatory. Allows longer time for the storage of the wastes, reduced record-keeping requirements and consolidation off-site without a permit.
- Wastes include:
 - Batteries
 - Mercury-containing thermostats
 - Mercury-containing equipment
 - Lamps
 - Certain pesticides
 - Used electronics



Universal Waste

Two Universal Waste Generator Categories: Small & Large Handlers

Small quantity handler :

can accumulate not more than 5000 kilograms total of universal waste (batteries, pesticides, thermostats, lamps and used electronics collectively) at any time.

Large quantity handler:

can accumulate 5000 kilograms or more of universal waste (batteries, pesticides, thermostats, lamps and used electronics collectively) at any time.

Universal Wastes can be stored for up to one year from the start date of accumulation.



Universal Waste

- How do I store my universal waste?
 - Container rules:
 - Closed
 - Structurally sound
 - Compatible with contents
 - Capable of preventing leakage, spillage, or damage
 - Used Electronics must be stored in a building w/roof & 4 walls or in cargo portion of a truck
 - Date of initial storage provided
 - One year to remove from site
 - Adequate Aisle space (DEEP recommends min 36 inches)



Universal Waste

- Universal Waste labeling
 - Accumulation start date
 - One of the following
 - “Universal Waste _____”
 - “Waste _____”
 - “Used _____”

Example Label

UNIVERSAL WASTE	
CONTENTS	Universal Waste Batteries
ACCUMULATION START DATE	Jan. 1, 2009
SHIPPER	Battery Recycling, Inc.
ADDRESS	1 Battery Road
CITY, STATE, ZIP	Hartford, CT 06106



Universal Waste

- Off-Site Shipments

- Can be to:

- Destination facility (including a RCRA TSDF)
 - Another universal waste handler
 - Foreign destination

- If a shipment is rejected by the receiving facility, waste must be accepted by generator or other arrangements must be made with another facility to receive material.



Universal Waste

- Off-Site Shipment Record Keeping Requirements:
 - Small Quantity Handler not required to keep records of shipments. **(RECOMMEND MAINTAINING RECORDS)**
 - Large Quantity Handlers must keep a record of each universal waste shipment as follows:
 - May be in the form of a log, invoice, or shipping document
 - Must include:
 - Name & Address of Universal Waste handler or destination facility waste was sent to
 - Quantity of each type of Universal Waste
 - Date of the shipment
 - Records must be retained for at least 3 year.



Universal Waste

- Training Requirements
 - A **small quantity handler** of universal waste must inform all employees who handle or have responsibility for managing universal waste
 - A **large quantity handler** of universal waste must ensure that all employees are thoroughly familiar with the proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies



Universal Waste

Emergency procedures : Spill/Release Procedures

Immediately contain any releases of Universal Waste and other residues.

Determine whether any material resulting from the release is a hazardous waste, and if it is, manage it under full hazardous waste requirements (e.g., hazardous waste container management requirements, etc.)

Handle any materials which are still Universal Waste under Universal Waste requirements. Materials eligible for continued management as Universal Waste would include “inadvertent breakage” (i.e. small amounts of Universal Waste that were broken or released accidentally), and intact items that can be separated from spill residues and containerized.



Used Oil – What is it?

- Oil that is no longer fit for its original use
- Examples include:
 - Crankcase oil & motor vehicle oils
 - Gear, chain, and ball bearing lubricants
 - Hydraulic & compressor oils
 - Drawing & Stamping Oils
 - Metalworking fluids & oils
 - Heat transfer oils
 - Dielectric fluid



How Do I Manage Used Oil Onsite?

- Used Oil Management (Tanks & Drums)
 - Marked with “Used Oil”
 - Good condition
 - Sealed unless adding or removing oil
 - Located indoors or under roof with containment
 - Suitable impervious surface
 - Outdoor storage allowed if :
 - Secondary Containment with 100% capacity. If uncovered take into account buildup of snow and rain.



Used Oil – Options for Disposal

- How do I ship my used oil?
 - CT DEEP Licensed Transporter
 - CT DEEP Licensed Used Oil Facility
- Onsite combustion in a space heater
 - Oil must be generated onsite or from household DIYs
 - Heater < 0.5 million Btu/hr capacity
 - Exhaust is vented outside



Generator Closure Requirements

What to do if you no longer store hazardous waste on site or relocate storage area:

- Characterize the waste
- Properly dispose of waste
- Properly dispose or decontaminate any equipment or structures
- Identify constituents of concern list, based on wastes managed
- Assess if releases occurred, consider migration pathways
 - Concrete sampling
 - Wipe sampling
 - Soil sampling
- Records/Documentation
 - Maintain closure records onsite
 - File DEEP/EPA forms to change or renew generator status



Recycling

Items that are required to be recycled “Designated Recyclables”:

- glass and metal food containers
- HDPE & PETE Plastic Containers
- high grade white office paper
- Colored Ledger
- old newspaper
- Magazines
- scrap metal
- Boxboard
- old corrugated containers
- lead acid storage batteries
- Ni-Cd rechargeable batteries
- waste oil
- Leaves
- grass clippings (should be left on lawn or composted)



Recycling: what should my company be doing?

Solid Waste Audit (What's in the trash?)

Ensure contract in place for recyclables collection

Use reusable or reduced transport packaging

Identify materials currently being disposed that have recycling markets

-Ex. Paper beverage cartons, used textiles, other types of plastics, other types of paper, yard waste, clean wood, electronic devices, etc.

Consider changing processes to reduce waste



Recycling: What should my company be doing? (continued)

- Purchase environmentally-preferable products
 - Ex. Products with recycled content, recyclable, durable and reusable rather than disposable
- See Business Recycling Assistance page linked from DEEP's Recycling Homepage:

www.ct.gov/deep/recycle



CT DEEP's Hazardous Waste Online Training Course (FREE)

Go to <http://www.ct.gov/DEEP>

Click on “Environmental Quality” Dropdown and choose “Waste Management”

From the Quick Links drop down, choose “Hazardous Waste”

Scroll down and Click on “Hazardous waste On-line Training Course” link.

OR

Go to : <http://www.ct.gov/deep/hazardouswaste>

and Click on the link for “Hazardous waste On-line Training Course”.



Any Questions?



DEEP's toll-free Hazardous Waste
Compliance Assistance (COMPASS)
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